



**TECHFEST-2022**



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## **Rules & Regulations**

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**DEPARTMENT: MECHANICAL ENGINEERING**

**NAME OF EVENT: ROCKETRY**

**NO. OF MAX. PARTICIPANTS: 90 GROUPS (On first come first serve basis)**

**EVENT TYPE: GROUP EVENT – Max. 3 STUDENTS PER GROUP**

**VENUE: MECHANICAL ENGINEERING DEPARTMENT – GEC, RAJKOT**

**REPORTING TIME : 12/10/2022, 8.30 am**

**EVENT SCHEDULE : 12/10/2022, 9.00 am onwards**

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**EVENT DESCRIPTION:**

GEC, Rajkot brings to you to show your knowledge in the field of rocket propulsion and aerodynamics by “ROCKETRY”. This event focuses on creation of water and/or air powered rockets.

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**REQUIREMENTS:**

Participants have to bring maximum two rockets of identical shape, size and design. Participants must bring launcher mechanism specific to their rocket.

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**GENERAL RULES :**

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- 1 The Rocket body must be developed from commercially available non-metallic material. No readymade rocket is allowed.
- 2 Fins, if required, have to be constructed from non-metallic materials. Total enclosed volume of the rocket must not be larger than 2 Liter.
- 3 The rocket must use clean water and/or compressed air only to produce thrust.
- 4 Participants can use different rockets for different rounds but design of rockets including fins and other attachments for all the rounds should be identical.



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- 5 Rocket launcher mechanism will not be provided so participants must bring their own launcher.
- 6 Participants are allowed to decide launch angle of their rocket.
- 7 Commercially available foot pump with standard nozzle outlet will be provided. If the model of participants operates with different nozzle sizes, bring your own nozzle and connecting pipe.
- 8 Maximum allowable pressure is limited to 50 psi for each launch.
- 9 Maximum allowable water at a time is 1.5 liters for each launch. If The rocket body is made with plastic bottles of aerated soft drinks, its maximum capacity will be of 2 Liter.
- 10 No component or a body part of the rocket should get detached from the main frame during the flight of the rocket. If any part gets detached then the rocket will be disqualified.
- 11 If any participant/group of participants who are not ready /available at the event commencement time, he will be disqualified from the event.
- 12 Any kind of interference between participants or with judges (this also includes obstruction of sight line and destruction of equipment) will lead to disqualification
- 13 In case of any discrepancy, decisions of the Jury/ Committee members shall be treated as final and binding to all.
- 14 Host institute reserves rights related to modification and updating the rules for successful completion of the event.

## LEVEL DESCRIPTION:

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### Round1:(Day 2, 150minutes, 90Participants Maximum)

- The objective of the elimination round is to launch a rocket without any payload, and make it go as far as possible from the launch point i.e. the maximum horizontal distance.



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• **Round2:(Day 02, 45 minutes, 15 Participants)**

- Rocket will be launched vertically. In this round the team whose rocket will remain in air for maximum time will get maximum point. Participant can use recovery system. (i.e. parachute).

**JUDGING CRITERIA:**

Winner will be selected based on the maximum points obtained by the participants in round-2.

**JUDGES:**

- Any one Industry Expert with minimum 10 years of experience in the relevant discipline  
OR  
Any one Academic Expert with minimum 10 years of experience in relevant discipline  
AND / OR  
Any one faculty from any other GTU affiliated college in the same zone  
AND /OR  
Any one faculty from the Host Institute

**EVENT COORDINATORS:**

You can contact the following coordinators if you have any query regarding the event.

Sr. No	Name	Faculty/ Student	Contact No	Email ID.
1	Rushi B. Rawal	Faculty	9033482952	rbrawal@gecrajkot.ac.in
2	Om Narayan Tiwari	Student	7903357821	Omtiwari1611@gmail.com
3	Aman D. Solanki	Student	9909261702	Amandsolanki61@gmail.com
4	Rohitkumar Gupta	Student	7698761781	Rohitgupta69421@gmail.com